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IT is pleasant to read the rumor that Secretary Gage, who, it will be remembered, was officially connected with the Chicago Exposition work, and had an opportunity to learn what architects are good for, thinks that the Government building-work is too important to be committed to a man of inferior professional attainment. He is, also, said to be considering the plan of taking the appointment of Supervising Architect of the Treasury out of Civil Service classification, not with the idea of throwing the office open to political wire-pullers, but rather for the sake of confiding it to a man selected by the profession itself, instead of to the candidate reported by the Civil Service Commission as having answered correctly the greatest number of questions on its examination paper. It is said that, in order to have the judgment of the profession to aid him in making a selection, candidates for the office will, if Secretary Gage's plan is adopted, be examined by three members of the American Institute of Architects in regard to their professional qualifications.

THE American School of Classical Studies at Athens has abandoned its intended explorations at Corinth for this season, on account of the imminent prospect that war between Greece and Turkey will make it impossible to hire laborers, while the Greek Government will have too much on its hands to attend to the necessary expropriations, and to the supervision of the work. Whether a war between Greece and Turkey means that archaeological research in Greece will be indefinitely suspended, no one can say. Military opinion seems to be unanimous that, without help from outside, the Greeks can do practically nothing to prevent the Turks from marching straight to Athens, desolating the country on their way, and, after their arrival, dictating such terms to their victims as may suit their fancy. Amiability toward foreigners has never been the strong point of the Mussulmans, and a new Turkish conquest of Greece would, in all probability, put an end to infidel classical studies in that country.

THE Fine-Arts Federation of New York has made a formal protest against the tax of twenty-five per cent *ad valorem* on imported pictures and statues embodied in the Dingley tariff bill. The protest is moderate in tone, but, in addition to the usual arguments against the imposition of the tax, makes

the good point that an *ad valorem* tax would do little to prevent the importation of cheap and trashy pictures, while it would shut out almost completely the works of the highest class, which are most needed here as a means of education, not only for our artists, but for the public. A few days after the publication of this protest, the National Academy of Design held a meeting, at which the action of the Federation was roundly criticised, not so much on account of the matter of the protest as because of what some of the painters and sculptors of the Academy regarded as the presumption of the Federation, which consists, in a large proportion, of architects, in assuming to speak for the painters and sculptors. The tone of the meeting was, however, unfavorable to the Dingley bill, and a committee was appointed to consider the matter of independent action on the part of the Academy. The example set by the Academicians has been followed by the American Water-Color Society, whose members seem to be similarly aggrieved by the action of the Fine-Arts Federation.

AS the Academy is composed mainly of artists who depend upon their work for their living, it is not surprising that some of them thought that a measure of real protection to their interests might be desirable. That the Dingley *ad valorem* tax would be no protection seems to be agreed, but one member suggested that a specific tax of one hundred dollars on each foreign picture imported would give real protection, while it would not be a very serious addition to the cost of works of the highest value. Although it is very unlikely to be adopted, this suggestion showed an appreciation of the needs of artists which makes it worth comment. Against the works of foreign artists of real merit we do not believe that any American painter or sculptor wishes to be protected. He would be a mean-spirited artist indeed who would not welcome foreign work of the best class, not only for his instruction, but that he might try to surpass it, as we believe that, sooner or later, American artists will succeed in doing. The real injury which they suffer from foreign competition comes, not from good work, but from the indescribable trash which is brought from Europe, and sold, generally under fictitious names, to people who, if they could not spend their money on counterfeit Corots, and Rousseaus, and Diazes, would turn to the beautiful work which our painters have to offer, much to their own advantage, as well as to that of the painters, who sorely need the encouragement of their fellow-citizens. Few people, except artists and dealers, know that real oil-paintings, on real canvas, mounted on real stretchers, large enough for house decoration, and having a tolerably close resemblance to works which have occupied true artists for many days, or weeks, are manufactured in quantity, and sold at a profit of from seventy-five cents to a dollar and a half each. These objects are produced by division of labor, one man or girl laying on the skies, the next scumbling in the clouds, a third putting on the chrome and lamp-black of the middle distance, while the fourth and fifth work up the principal features, and touch up the foreground with emerald green and Naples yellow. Vast numbers of these pictures are put into frames gilt with Dutch leaf, and sold throughout the country at auction, by regular dealers, and by travelling peddlers, at ten, fifteen or twenty dollars each, in direct competition with good, but modest American pictures, any one of which would be worth a ton of the manufactured trash. It is hardly necessary to say that the trash business is quite as well understood in Paris and London as here, but, while the American factory-picture is generally sold under some unknown name, the French product, which is usually a glaring reproduction of the style of some well-known artist, is ornamented with the latter's name in bold characters, and sent off to be sold for forty or fifty times its cost to some American amateur, who knows enough about pictures to be aware that if, by any possibility, his purchase should be a genuine work of the artist whose name it bears, it would be a bargain at the price, but does not know enough to detect the fraud with certainty. There is no doubt that a specific tax of a hundred dollars on every picture imported, as suggested by the Academician, would check for a time this industry, but, the result would probably be that the imitation of Monets and Daubignys and Mauves would soon be transferred to this country, and the condition of affairs would be worse than ever.

A DECISION which, if it is correctly reported, is of great importance to architects and owners of buildings, as well as to insurance companies, has been given in New York. So far as the facts are mentioned in the newspapers, it appears that the plaintiff, one Foley, with others, had three dwelling-houses in process of construction under a contract with a builder, that, before completion, they were burned, and that the insurers, in this case the Manufacturers' and Builders' Fire Insurance Company of New York, refused to pay indemnity to a greater extent than the amount of the payments made to the contractor, on the ground that the insurable interest of the owner, where a contract exists by which the contractor is bound to replace the insured buildings at his own expense, is limited to the amount already paid, at the time of the loss, by the owner to the contractor on account of the contract. We imagine that the view of the matter taken by the insurance company is that generally prevalent in the building world, but the New York Court of Appeals rejects it in the most decided manner. In giving judgment for the plaintiff, the Court says, "The owner in fee who was in possession of land on which incomplete buildings were in course of construction under a contract binding the contractor to furnish the materials and complete the buildings (above the foundation) within a time specified, which had not yet expired, for a specified sum, payable after their completion, had an insurable interest to the whole value of the buildings, although in case of their destruction by fire before completion, he may not be bound to pay the contractor for the work done, or materials supplied, and the contractor may remain bound by the contract. The liability of an insurer for buildings destroyed by fire is not affected, in the absence of any exemption in the policy, by the fact that they cost the owner nothing, or that he may compel another person to replace them without expense to him, or that he may recover his loss by resort to a contract liability of a third person."

WHAT the effect of this decision may be on building affairs in New York, it is too early to say, but it is likely to be serious. The practice of careful architects has usually been to advise the owner to insure his interest, as measured by the amount of the payments made by him from time to time to the contractor, and to require the latter to insure his interest, being the difference between the value of the buildings at any given period, and the sum of the payments received by him from the owner; so that, in case of loss, the owner should get back what he had paid out, and the builder should get back enough, added to what he had received from the owner, to reimburse him for his whole outlay, so that the parties might begin the work over again, or, if advisable, might terminate the transaction without loss. The new view of the law is likely to change all this. Strictly, it cannot be said that the owner has not a certain interest in the building, beyond his actual payments, for, even if he is reimbursed for these, the builder may have been foolish enough, as many builders are, to have neglected to insure his interest, and the consequence of a fire may be the bankruptcy of the builder, necessitating a second contract, perhaps at a higher price, to secure the completion of the work. Such an interest, however, would seem to be too remote to be insurable, and architects usually provide against risks of the kind by keeping the builder's policy in their own hands, or by advising the owner to insure his own and the builder's risk together, with the understanding that the insurers will apportion the indemnity properly between the parties. Under the new decision, it would seem as if the owner might not only cover his own and the builder's interest under one policy, but collect the whole of the money, and put it into his pocket, leaving the builder to get his share as he could. If everybody were perfectly honest, this arrangement might be tolerably satisfactory, but the opportunity which it seems to afford the irresponsible speculators who are the curse of the building world for putting a heavy insurance on unfinished buildings, getting them accidentally burned, and escaping with the money, may, we fear, be too tempting to resist.

A DISCOVERY is reported from Ohio, with rather more circumstance than usually accompanies the announcement of archaeological revelations in this country, yet with some details which suggest caution to the prudent enthusiast. Last autumn, as we are told, a "laboring-man" found in Fairfield,

Iowa, under the roots of a tree some fifty or sixty years old, and about three feet below the surface, a "hollow log" of oak, something over a foot in length, by eight inches, and five or six inches thick. This "log," or "chunk," was "encased with a coating of pitch," and somewhat charred, as if the pitch had been melted by holding the "chunk" over a fire. Out of curiosity, the laboring-man struck the object with a pick, splitting it open, and revealing "a roll of birch-bark, covered on one side with strange hieroglyphics." The intelligent laboring-man had sense enough to carry the sheet of bark home, and spread it out between two pieces of glass, and put it in a frame. A lady who lived near heard of the discovery, and wrote about it to Professor Moorehead, of the Ohio State University, "a man famous for being versed in Aztec lore and knowledge," and the Professor persuaded the owner to send it to him for examination. On its arrival, the Professor's "Aztec lore" proved insufficient to read the manuscript, or even to make out what language it was written in, although he thought it was either Aztec or Maya, and that it was executed "by some of the highly cultured tribes of Mexico or Yucatan." The characters are said to be executed in a red pigment, "evidently the juice of some plant," and Professor Moorehead thinks that a party of "highly cultured" Aztecs or Mayas had probably brought the manuscript with them on an expedition to the North, and that, through sickness or war, having become unable to carry the treasure any longer, had buried it where it was found.

HOW these "highly-cultured" persons from the Gulf of Mexico happened to bring from home manuscripts written on the bark of the paper-birch, which is a tree of the far North; what was the plant whose "juice" formed an ink which would endure underground, without fading or change, for nearly a thousand years; or how the birch-bark and the "chunk" of wood which enveloped it were preserved in the moist loam of Iowa without rotting, during this period; all these are questions of as much interest to general science as the deciphering of the manuscript is likely to be to archaeology. Of course, we mean no disrespect to Professor Moorehead, who is not responsible for the embellishments with which newspaper reporters adorn such tales; and as the whole affair has now been forwarded to the Smithsonian Institution, where, if anywhere, the writing will be deciphered, we may be sure that any deception will be thoroughly and unhesitatingly exposed.

MR. OVERMIRE read a paper some weeks ago before the Minnesota Chapter of the American Institute of Architects, in which he defended the claim of Mr. Buffington, of Minneapolis, to the credit of having been the first to invent the modern system of encased steel construction for buildings, and thought that we ought to correct our editorial of last August, in which we said that it was "hardly necessary to say that Mr. Jenney has long been accorded the honor of having been the first to use this construction in an entire building." We should be the last to wish to do injustice to Mr. Buffington in this matter, and perhaps, at the time when the editorial was written, depended rather more than we should upon an impression formed a dozen years ago, when Mr. Buffington's claim to a monopoly of the system, by virtue of patents relating to it, was much discussed in the profession, that his claim was not satisfactorily established. Mr. Overmire says that the skeleton system was used in the "Boston Block," in Minneapolis, in 1881, and was described in Mr. Buffington's patent specification. Of course, the most decisive proof of priority on Mr. Buffington's part would be secured by a judgment against Mr. Jenney and others for infringement of his patent; but we understand that he does not wish to take hostile measures against members of the profession, and architects will feel all the more disposed, in consequence, to give him credit for whatever may be shown to have been really his invention. Unfortunately, in default of an appeal to the Courts, there seems to be no tribunal to judge between the claimants; and it would hardly be practicable now to go over all the evidence which was discussed in 1885. If Mr. Buffington, or Mr. Overmire, would like to show briefly to our readers the "Boston Block" construction, we should be glad to afford space for the necessary illustrations and description, and professional men could easily form their own opinion of the extent to which it anticipated that now in use.

PUEBLO ARCHITECTURE.—I.

GENERAL PRINCIPLES.

IN an out-of-the-way corner of the United States there is a peculiar and distinctively American architecture, which, while much written about, is not well known to architects. Although purely aboriginal in origin, hardly less so in its development, it is one of the best examples afforded by the history of the world of adaptation to environment, to the physical peculiarities of the country where it is found, and it should be of interest to the student of architecture; for adaptation to the country where it is practised, and to the life and wants of the people who practise it, are the great principles underlying every school of architecture.

On the archaeological side it is well known that there is no class of art remaining which has the same value to the student, and which contains so clear a record of a people's life and aspirations as the remains of their house structures and public edifices. Aside from its clearness such a record is especially valuable, because it is made unconsciously and without thought of how it will be interpreted. Certain wants of the people are met in a certain way, or in a variety of ways, and as a rule the various attempts to meet such wants are embodied and crystallized, as it were, in the expedient finally adopted; so that each detail contains in itself a record of all or many of the previous attempts made to accomplish the same result in different ways. The same phenomena are found all over the world: forms and expedients employed in stone construction, for example, were clearly first used in wood, and while well adapted to the latter are hardly suited to the former. Yet they survive year after year and age after age through that conservatism in art which forms the second and not least important element in its evolution, for without the conservative or conserving element there would be no progress in evolution.

Many years ago, when Ferguson wrote his great "*History of Architecture*," he lamented the absence of data on aboriginal American house structures, the one chapter which remained to be written in the general history. Since that day much has been done to supply

of a primitive people and, like all such people, the Pueblo builders were, and are, peculiarly sensitive to the influences of their physical and topographic surroundings. They are truly children of nature, and unconsciously put themselves in accord with natural conditions with a completeness and celerity which is almost incomprehensible to a people whose lives are so largely artificial as our own.

Unquestionably inherited ideas and skill attained in practice have much to do with the course of development of the art of house-building, but these elements act through and are modified by the principle

of adaptation, especially among a primitive people. The houses of such a people are made to accord directly with their immediate wants and their habits and customs, and always the most simple and direct means to an end are employed. In other words, the facilities afforded by nature for the execution of ideas in house-building are apt to exercise a larger influence on the final form which such ideas take than the original ideas themselves.

The unit of Pueblo architecture is the single cell, and the largest villages are merely aggregations of such cells into huge bee-hive structures, sometimes four or five stories high in parts. The single cell is

now seldom found, although there are examples here and there in the inhabited villages, and thousands of ruins mark the sites of single rooms. Generally, such rooms are arranged in long rows side by side, sometimes in clusters. As a necessity arises for more rooms, additional ones are built either alongside of the others or on top of them, and as the process is continued, the final result is a huge building formed of rooms of fairly even size, set one above another in such a manner that the outside of the structure presents a series of terraces or great steps.

But no matter what the size of the building may be, the rooms which compose it are essentially the same throughout. While differentiation in function necessarily follows the erection of such large buildings, for the innermost and darkest rooms could not have the same uses as the light and airy chambers at the top of the structure, differentiation in form has hardly begun. The great buildings are not constructed all at once, but gradually, room by room, year by year; and what is now an outer room, open to the sunlight and air,



A Moki Field Shelter, from Southwest.



An Old Farming Shelter.

the lack of which he complained, but it is only within the last decade that systematic work in this field has been carried on by the Smithsonian Institution and the Bureau of American Ethnology, and only quite recently that the results of that work have become available.

The key to the problems of Pueblo architecture is to be found in the great principle of adaptation to environment. It is the product

may in a few years be an inner chamber, useful only for storage.

This peculiarity of structure is due to odd social conditions. The people are divided into large artificial families or clans, which, in the olden days and to a certain extent now, each inhabited its own house cluster. Descent and property rights are in the female line, and when a man marries he is adopted into his wife's family and goes to live in her house. Hence, it comes about that a clan in which there

are many girls must increase, while one in which the children are all boys would become extinct. There is thus an ebb and flow of population within each village. When through the growth of a family their quarters become inadequate, new rooms are built, but by an old and long-established rule, they must be erected adjoining to and connected with those already occupied. It is, therefore, not unusual to see extensive building operations under way at one end of a row, while at the other end, or in adjoining rows, many rooms are abandoned and falling into decay.

Since the earliest times, the Pueblo tribes have been subjected to more or less pressure from neighboring wild tribes, and this influence has played an important part in modifying their home structures. The terraced construction which grew out of social conditions was a decided advantage, in that it permitted a certain freedom

of domestic operations on the roofs and terraces without incurring the dangers which might follow similar operations conducted on the ground. Thus it came about that in the Pueblo system the upper portions of houses only were used as living rooms, while the first stories were constructed without exterior openings in the walls, and were entered only through trap-doors in the roofs. Access to the roof or first terrace was had by a ladder reaching to the ground, but not fixed in place. Such ladders were easily removed in times

the first-floor rooms, giving directly on the streets. New rooms are often built now without reference to the old clan requirements, and with large and convenient openings. But for many centuries the old rules were rigorously followed, for they were enforced by natural

conditions as much as by human authority.

The Pueblo system is distinctly utilitarian in character. Under the old definition of architecture, as "ornamented and ornamental construction," it would hardly have a place. As a rule, the aesthetic side of the art is conspicuous chiefly by its absence. In some instances, it almost seems that the Pueblo houses vie with animals in that protective mimicry of nature which has attracted so much attention among naturalists. In color, position, size and outline, some of the villages so closely resemble the rocky faces of the mesas on which they were perched, that at a

distance they cannot be distinguished. Possibly, however, this result is accidental rather than intentional, for the conscious employment of such a device would indicate the possession of qualities which the houses themselves do not show. While both ornamented and ornamental construction are found among the Pueblos, they are in rather a rudimentary form, and the efforts which have been made on this line have not exercised a wide or a dominating influence on the regular homes of the people.



A Moki Field Shelter, from Northeast.



Village on Mesa Site.¹

of danger, and when so removed the besieged had a decided advantage over their adversaries.

Now that the pressure of the wild tribes has been removed, the old restrictions are breaking down, and openings are being cut in

Pueblo architecture is the direct product of the country where it is found, or of a country like it, and not only in its birth, but also in

¹ The cuts used with these articles are from the *Annual Reports of the Bureau of American Ethnology*.

its development, has been influenced by the peculiarities of that region. The ancient Pueblo region is practically coincident with the plateau country, and extends from Great Salt Lake to beyond our southern border, and from the Grand Cañon of the Colorado to the Rio Grande. In this immense area, comprising about one hundred and fifty thousand square miles, a certain sameness prevails, due to peculiar geological conditions; and it is through this sameness or similarity in conditions that the old culture was so widely distributed that to-day its ruins are to be counted by thousands.

The region is composed almost entirely of mesas; it is the mesa country. These peculiar flat-topped tablelands are composed of strata of sandstone of varying degrees of hardness, and as the edges weather, a sharp incline is produced, composed of short vertical cliffs connected by slopes of débris. Huge sections are split off from the faces of the cliffs by the action of frost, and the fragments are scattered over the slopes. Thus we have everywhere an abundance of fine building material, for the sandstones of this region are well stratified or laminated, and break up into blocks and tablets, sometimes as regular in size and shape as manufactured brick. The only labor necessary for the construction of walls is the selection of the material and its transportation to the place where it is to be used. The latter is not an onerous task, for within a stone's throw of almost any site selected, such material can be found in abundance. Adobe, formed of clay with a percentage of sand, is almost equally abundant, and with the admixture of water it forms an excellent mortar, both for laying up masonry and for surface finishing, should the latter be desired.

From the great amount of data that has been collected, it is now possible to form some idea of the sequence in development exhibited by the ruins which dot the hills and valleys of the southwest. In the earliest times, the settlements were probably small, and it was only under pressure from outside hostile tribes that villages of considerable size were formed. Subsequently, these villages were located on high mesas and other sites which promised facilities for defence, and such sites were usually selected with reference to the arable lands which they overlooked. Still later, related villages found it necessary to combine together for the common weal, and huge beehive structures were erected in the midst of fertile plains, on indefensible sites, but convenient to the fields under cultivation; for in this stage of development the Pueblo builders relied on the size of the village and the number of its population, and not as in former times on the site occupied.

With the first concentration of scattered houses into villages, a new element entered into Pueblo architecture. Arable land is scarce in that country and is usually found only in small patches here and there. It was not often that a suitable site could be found which at the same time commanded an extensive area of cultivable land. From these conditions it came about that each village or home settlement had a number of outlying establishments to which some of the people resorted during the summer season, for the purpose of farming the lands adjacent to them. These establishments were usually single rooms, but sometimes there were clusters of houses and even considerable villages.

These summer shelters, occupied only a few months in each year and abandoned for the home village on the approach of winter, were an invariable accompaniment of every stage of Pueblo growth. They are of various forms, but functionally, they are all alike. In Moki, they are brush shelters; in Zuñi, they are single rooms in old ruins maintained in good order, while the rest of the ruin sank to decay, or else they are regularly constructed rooms clustered into little villages. Where the topography favors that form, the shelters become cliff-dwellings, and when the geological conditions permit, they become cavate lodges—cavities excavated in hills and bluffs of soft volcanic ash or tufa, and entered through small doorways and narrow passages.

It is impossible as yet to establish any chronologic order for the various types of Pueblo villages and buildings. A sequence in culture, however, is clearly exhibited, and it is also established that the cliff ruins, formerly regarded as early steps in development, are a sub-class attached to and forming part of each general class indicated above. There is nothing primitive about them; on the contrary, they exhibit as great a knowledge of construction, as much skill, and practically as much knowledge of various expedients employed, as the average modern village. Studied in connection with the villages, and without reference to history, tradition, and other outside sources of knowledge, the average architect would be apt to class them as the ultimate rather than an early form of art in house-building in the Pueblo system.

The greatest achievements of the Pueblo architects were the great valley *pueblos*, housing several hundred people in one great structure. Under modern conditions, these great villages are breaking up into small individual settlements, and as the forays and depredations of the wilder tribes are checked or terminated, the movement derives a greater impetus. It is now in progress in many of the *pueblos*, and in a few decades at most the old architecture will have disappeared.

COSMOS MINDELEFF.

[To be continued.]

JOSEPH PENNELL vs. THE *Saturday Review*.—It is, perhaps, fortunate for Mr. Pennell that we were not called to serve on the jury that has awarded him damages. We disagree with him and the jury as to what is and what is not a lithograph.

THE ARTS AND CRAFTS EXHIBITION.¹—II.

THE first impression that the visitor to the architectural part of the Arts and Crafts Exhibition receives is that the dimensions of the catalogue are very much out of proportion to those of the exhibition; but further study of both shows that the bulk of the catalogue is made up almost entirely of advertisements, only seventeen pages, out of two hundred and ten, being devoted to the description of the drawings, while the exhibition, although crowded into a small compass, includes something like four hundred drawings and photographs, many of which are of considerable size.

Several of the most important drawings have already been shown to the public at the League Exhibition in New York, but there are enough new ones to give the Boston exhibition a strong local flavor, and the Boston architects have reason to congratulate themselves that this local flavor is a most agreeable one. New York, naturally enough, can show an abundance, a superabundance, perhaps, of highly-colored perspectives, and designs of imposing size and richness, but Boston offers this year much domestic work, of a very simple class, so refined, and studied with such skill and knowledge, as to justify us in hoping that this is to be in future, as it has been in the past, the distinguishing excellence of the Boston school, and that the artistic standard set up by Mr. Emerson and Mr. Peabody will be maintained by the generation which is to succeed them.

Of these two leaders in American architectural art several works are shown, and it is pleasant to find both of them at their best, after having missed them for some years past at the League exhibitions. Mr. Emerson has two sketches, in his own peculiar style, of houses at Beverly and near Cincinnati, which, although hasty in execution, even for him, have never been surpassed in the beauty of color, and intensely poetic feeling, which we have learned to associate with his drawings. Of the two, the Beverly house, a gabled structure, in brick red, partly hidden by the shrubbery of an enclosed garden, is perhaps the more full of sentiment; but the drawing of the Cincinnati house, which is represented as occupying the top of a gentle elevation, overlooking the river, is a wonder of coloring. Certainly, the art of painting in this country lost something when Mr. Emerson resolved to devote himself to architecture; but, on the other hand, architecture gained. Another large drawing, a bird's-eye view of the group of buildings of the Riverside Casino, is by no means so happy, but the subject is not one to stir the imagination very strongly. Mr. Peabody is represented by a large perspective of the Chamber of Commerce building, at Cleveland, which is rather heavy in design, and suggests again the common saying among Boston architects, that Messrs. Peabody & Stearns's executed works generally look better than the drawings; by some well-studied detail-drawings, and photographs of executed work which do much to justify that observation; and by a beautiful colored sketch for the new Christ Church, Waltham, with the parish house attached, showing Mr. Peabody at his very best, with a subject thoroughly suited to his taste.

Messrs. Walker & Kimball have also an extremely interesting and artistic church, in an unobtrusive Romanesque style, shown in a clever colored drawing on brown paper, with Chinese white clouds. This work received the gold medal of the Philadelphia Art Club not long ago, and well deserved it. The same architects show a large stretcher, surrounded by what appears to be a garland of laurel, and containing several sketches for the buildings of the Trans-Mississippi Exposition, which is, we believe, to be held at Omaha before long. The sketches are rather slight, but show a stately and showy group, with plenty of peristyles and colonnades, which, as we judge from the laurel, has pleased the managers of the Exposition as well as us.

Messrs. Cram, Wentworth & Goodhue show some of their characteristic designs for churches, among them being an eccentric but effective one, with an immense vaulted recess, like a Brodingnagian exterior pulpit, over the entrance, for Fall River, and a very pretty and quiet group for Rochester, N. Y.; Mr. J. Williams Beal has some pretty colored sketches for half-timbered houses; and Mr. John Lyman Faxon shows a well-studied treatment of a "sky-scraper" office building. Mr. William Atkinson presents a "Suggestion for the Improvement of Copley Square," which, at first sight, seems to consist simply in paving it with Belgian blocks; but, on closer examination, a portion of an arcade, which does not now exist, is discovered, extending northward from Trinity porch, so that the "suggestion" probably includes some feature of this nature. Mr. Atkinson shows, also, a sober design for a group of city houses, well drawn, but less interesting than some of his other work that we have seen, which deserves to be much better known than it is. Messrs. Wheelwright & Haven show several drawings which have a local interest, as representing the future stations of the Subway. They are all one-story buildings, Classical in design, and, as a rule, simple, although one or two are ornamented with colonnades; and Mr. Ernest M. A. Machado and Mr. Henry F. Bigelow have some very pretty drawings in pencil, the latter, particularly, showing a design for a country house, so rigorously simple, and yet so elegant in its proportions, as to give singular satisfaction to the professional beholder, who knows not only the difficulty of doing such work, but the still greater difficulty of finding a client to appreciate it.

We must neglect some of the Boston architects, in order to have space to mention the most important works from places outside of

¹ Continued from No. 1111, page 14.

Boston. Among these, the drawings and photographs contributed by Messrs. Carrère & Hastings, of New York, are particularly prominent. The house built by them for Mr. E. C. Benedict, at Greenwich, Conn., is shown by a large plan, which includes the laying-out of the garden, and by several photographs, which give an admirable idea of the peculiar nobility which these artists succeed in impressing on so much of their work. Although not a very large affair, the Benedict house might stand with perfect propriety upon some island in the Italian lakes, and be known as the "palazzo" to all the country around, yet there is about it no slavish imitation of Italian work, or anything else in the remotest degree suggesting a masquerade. Not far off is another house, also shown in a large plan, including the garden, for Mr. Giraud Foster, at Lenox. This is what the English call a "red brick and ashlar" house, stately, symmetrical and beautiful, and greatly improved in effect by the terraces and formal gardening which Mr. Hastings manages so skilfully. Altogether, these two designs are of extraordinary interest, even for Messrs. Carrère & Hastings's work, which is saying a great deal. Another great house is shown by Mr. T. P. Chandler, of Philadelphia, one of the huge stone mansions which are becoming common about Philadelphia and New York, but are not much known in other parts of the country, and which suggest a question whether it will ever be possible, in our severe and changeable climate, to introduce the English habits of country life, from which the English mansion has been developed. Mr. Romeyn and Mr. Randall, of New York, show designs for other large houses. Philadelphia is represented also by the beautiful drawing for the Entrance Tower of Blair Hall, at Princeton University, which was shown at the League Exhibition, and by some for the Pennsylvania School for the Blind, all by Messrs. Cope & Stewardson, and by some characteristically picturesque sketches by Mr. Wilson Eyre, Jr.; and Messrs. Wyatt & Nölting send from Baltimore a perspective view of the new Baltimore Court house.

For the first time in Boston, so far as we know, a collection has been made of school-work from the Architectural Departments of the Massachusetts Institute of Technology, Harvard University, and the University of Pennsylvania. Naturally, perhaps, the Institute of Technology makes the best appearance, but a very creditable set of designs is sent from the University of Pennsylvania, and the Harvard exhibit, considering the youthfulness of the Architectural Department, is very promising—enough so to be hung in a better light.

PAPYROLITH: A NEW MATERIAL FOR FLOORING, ROOFING, ETC.

ZURICH, November 5, 1896.

A NEW material, suitable for flooring, roofing, lining of water-closets, bath-rooms, walls, etc., was invented by Otto Kraner, at Einsiedel, near Chemnitz, Saxony, about two years ago. The article did not, however, prove to possess sufficient resistance and consistency. Subsequently, it was taken up and improved by Messrs. Braendli & Co., at Mainaustrasse No. 24, Zurich, Switzerland, who, by the addition of some chemicals, have, as they claim, brought it to perfection and made it as durable as stone.

I called on the above firm to obtain what information I could, and from them learned the following:

Papyrolith is a new kind of material, the principal ingredients of which are waste-paper and sawdust. These two substances are mixed with certain chemicals, which, so far, are the exclusive secret of the manufacturers. The material is made into three separate bodies, viz, (1) a moist powder, (2) a dry powder, and (3) a liquid. These are then mixed in a proportion of four pounds of moist powder with six pounds of the dry one, and enough of the liquid substance is mixed therewith to bring the mass to the density of ordinary mortar. It is then spread over a foundation of wood or stone, as the case may be, in the same manner as asphaltum or cement, stamped down, levelled, left to dry, and then polished. It requires at least two days to dry and harden.

This papyrolith, it is claimed, becomes as hard as stone, but without losing its elasticity, is perfectly water-tight, fireproof, a non-conductor of heat, cold, or sound; being spread into one solid mass, it has no joints, is not porous, is non-adherent of dust or microbes, is noiseless, and, therefore, especially recommended for flooring school-houses, hospitals, houses and public halls, water-closets and bath-rooms.

For roofing, it is spread over a grooved or kind of corrugated roofing pasteboard, especially manufactured for that purpose. It is lighter than other roofing material, weighing only fourteen kilogrammes per square metre (about twenty-six pounds per square yard), and requires, therefore, but a light wooden construction to support it; it is water-tight, a non-conductor of heat or cold, and, what is more important, it is incombustible. It can be made in whatever color desired.

As to its wear and durability, the article has not been in use long enough for experts to give an opinion; but contracting architects, with whom I have talked on the subject, believe that it possesses all the qualities the manufacturers claim for it.

The Zurich school authorities have had floors of this material laid in several of the city school-houses as a trial. In the Federal Museum an entire hallway is covered with it. Private individuals are contracting for it to line the walls of their bath-rooms, kitchens,

etc., in place of tiling, formerly used for the same purpose, it being water-tight and less cold, and not so apt to crack under the changes of temperature.

The prices of papyrolith, laid down and ready for use, are, for the present, quoted at the following figures by the manufacturers (Braendli & Co.): Floors with a layer of 0.591 inch thickness, about \$1 per square yard; floors with a layer of 0.985 inch, about \$1.25 per square yard; roofing, \$1 per square yard; walls, \$1.25 per square yard; special decorative work, as per agreement. Cost of manufacture is not obtainable.

No patent or application therefor has been obtained or applied for. The manufacturers state that none is obtainable on an article of this kind, but as the chemicals or mixtures used in the preparation of papyrolith are only known to themselves, they feel safe against competitors.

EUGENE GERMAIN, U. S. Consul.



PARTY-WALLS.

RIGHTS in Party-walls.—The owner of a double dwelling-house, the division-wall of which was only of plank and plaster, about two and one-half inches thick, and through which the joists of the building extended, being supported by the partition-walls of the two houses, which were about six feet from the division-wall, conveyed one-half of the house and then the other, the deed to each purchaser describing the land conveyed as bounded by the centre of the division-wall. The Supreme Court of Errors of Connecticut held that the first purchaser did not take as against the second, by implied grant, any right to the support of the joists by the partition-wall on the land of the second, so as to render the latter liable, irrespective of negligence, for injuries caused to the house of the first by the removal of such partition-wall, no damage to the division-wall being done.

[Whiting vs. Gaylord, 34 Atlantic Rep. 85.]

Liability of Owner and Grantees under Party-wall Agreement.—A party-wall contract between O and K provided that K, his heirs and assigns, should pay O one-half the value of such wall when he or his heirs or assigns used the same, or for as much as he used of it. The contract was duly acknowledged and recorded. After O built the wall, K conveyed his lot by general warranty deed, and from his grantee title was deraigned, by successive general warranty deeds, by D and S, who appropriated and used the wall. The Court held that K was primarily and personally liable to O's successor in title for one-half the value of such wall, and that K's successive grantees were liable in the inverse order of their deeds.

The fact that such agreement was indexed as a deed, instead of a mortgage, did not affect the question of notice by record.

[Knowles vs. Ott (Ct. Civ. App. Tex.) 34 S. W. Rep. 295.]

Right to Use of Party-wall.—Where a board of directors consented to allow an adjoining owner to use a wall of the corporation's building as a party-wall, and such owner erected a building with the knowledge and consent of said directors, the corporation will be estopped to assert that such party has no interest in the wall; but its remedy, if any, is an action for the recovery of a proportionate part of the cost of said wall. Where the corporation's wall projects over the adjoining land, equity will not enjoin the owner from the use of the wall as a party-wall.

[Bank of Escondido vs. Thomas (Supreme Ct. Cal.) 41 Pacific Rep. 462.]

Right to Party-wall acquired by Long Use.—Where an adjoining owner and his predecessors in title had used for twenty years a wall, part of which was wholly situated on the neighbor's land, for the support of their building, an easement in such land for such purpose was created by such long use, and this right becomes an appurtenance to the estate and passes to the grantees.

[Barry vs. Edlavitch (Ct. App. Md.) 35 Atlantic Rep. 170.]

Increasing Height of Party-wall.—An agreement whereby one purchased the right "to place joists to the depth of four inches and otherwise build into and against" the wall of the house of another, "and to otherwise use the same as a party or division-wall" includes the right to increase the height of such wall.

[Dorsey vs. Habersack (Ct. App. Md.) 35 Atlantic Rep. 96.]

Right to make Additions to Party-wall.—The east wall of a party's building was a west wall of the building of another, and by it the joists of both buildings were supported. The wall from the base of the grade was sixteen inches thick, from there to the ceiling twelve inches, and above the ceiling to the top of the fire-wall eight inches, the offset being on the side of the first party. The Supreme Court of California held that the wall must be considered a party-wall throughout its whole extent, upon which either party had the right to make additions.

[Tate vs. Fratt, 44 Pacific Rep. 1061.]

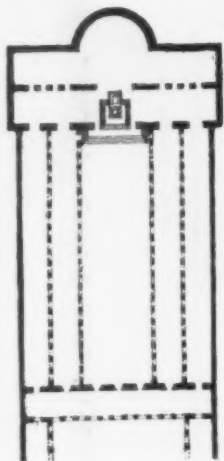
Party-wall Agreement.—An agreement for the construction of a wall in common by joint property owners, to the height of three stories on the land of one, does not justify the assumption that the



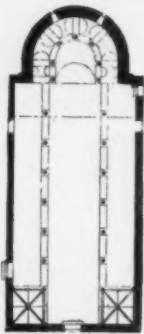
APSIDAL TREATMENT, NO. 17:—STA. MARIA DELLA PIEVE, AREZZO, ITALY.



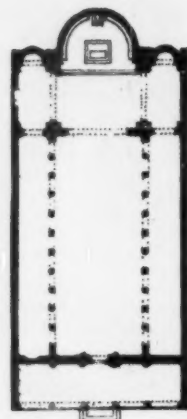
APSIDAL TREATMENT, No. 18:—CHURCH OF S. STEFANO, FLORENCE, ITALY.



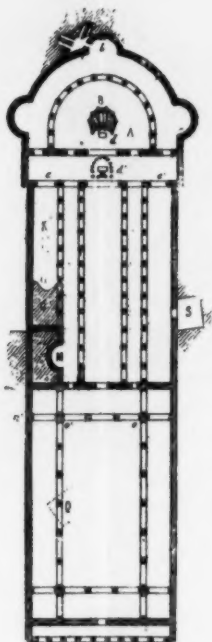
St. Paul extra Muros, Rome, Italy.
[5th Century.]



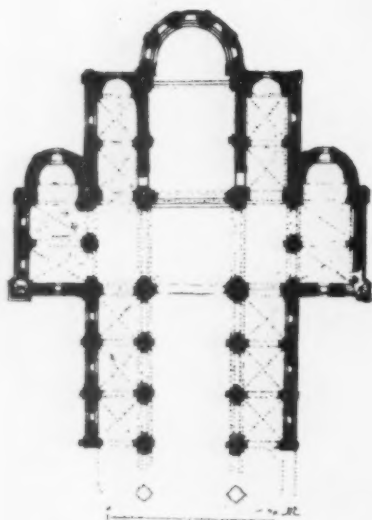
Cathedral of Arbe, Austria.



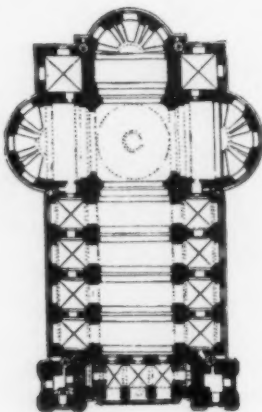
S. Pietro in Vincoli, Rome, Italy.



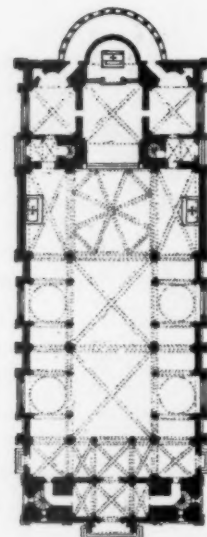
Basilica of the Holy Sepulchre
Jerusalem.



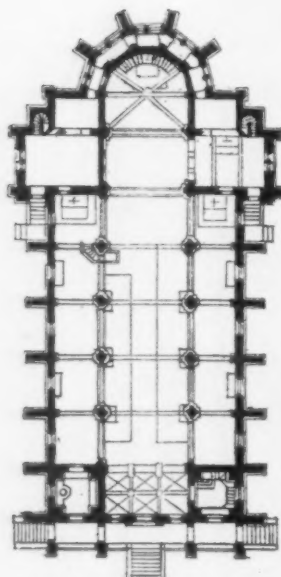
Abbey Church, Cerisy-la-Forêt, France.
[11th Century.]



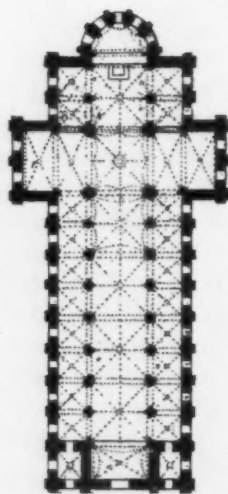
Salzburg Cathedral, Austria.
[17th Century.]



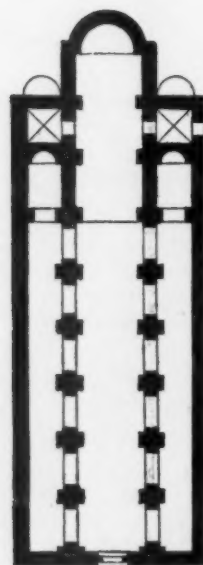
Church at Altlerchenfeld, Austria.



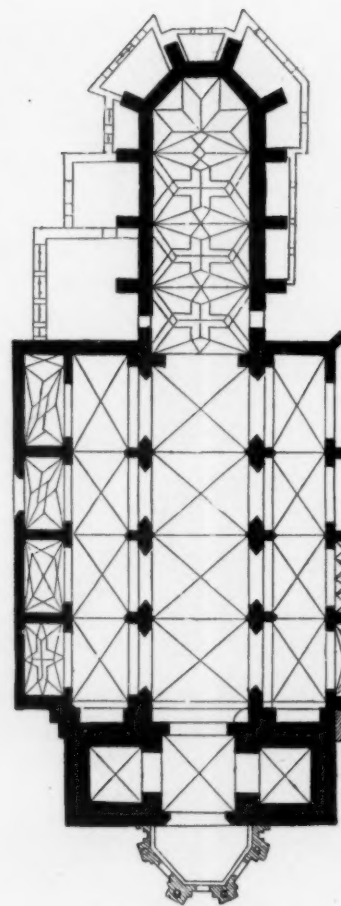
Church at Brigittenau, Austria.



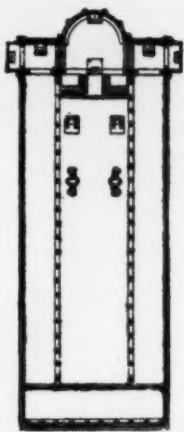
Abbaye aux Dames, Caen, France.
[12th Century.]



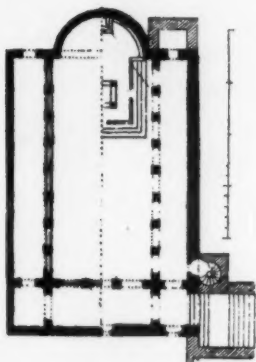
Church, Strahow Monastery.
Prague, Bohemia.



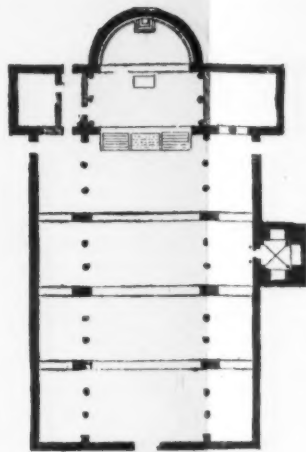
St. Mary's, Cracow, Poland.
[14th Century.]



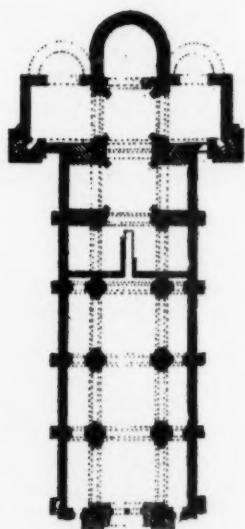
Sta. Maria Maggiore, Rome, Italy.
[5th Century.]



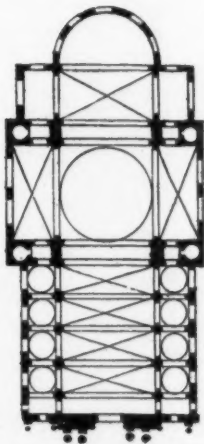
S. Agnese extra Muros, Rome, Italy.
[7th Century.]



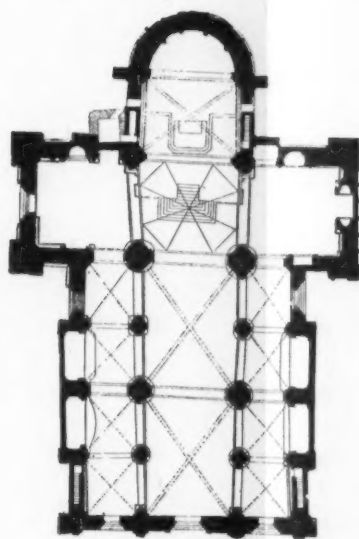
Basilica of S. Prassede, Rome, Italy.
[9th Century.]



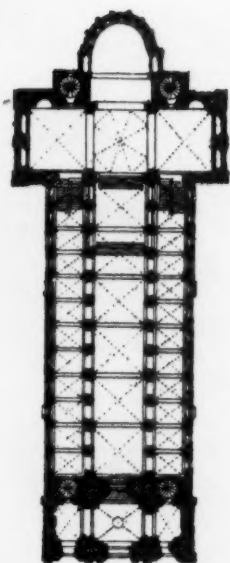
St. Trophime, Arles, France.
[12th Century.]



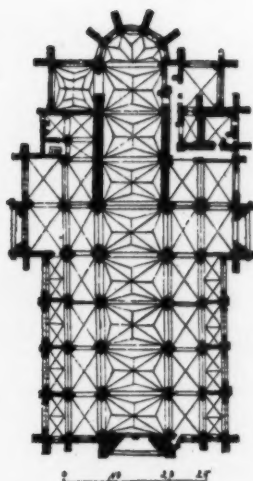
SS. Paul and Louis,
Paris, France.



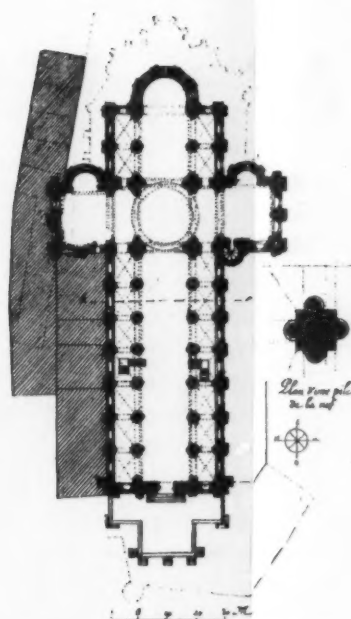
S. Michele, Pavia, Italy.



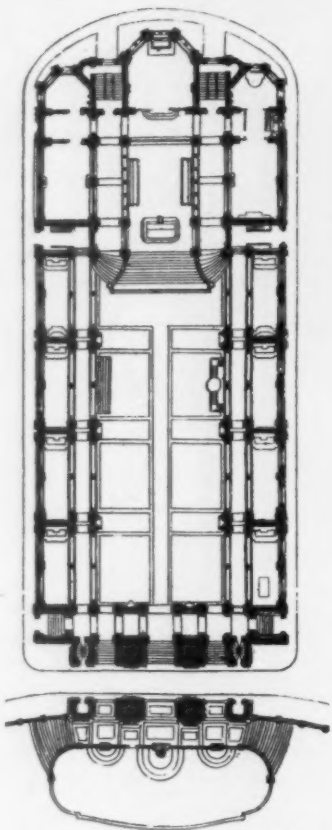
Spiros Cathedral, Germany.
[11th Century.]



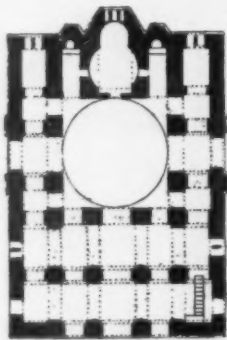
Notre Dame de Brou, Bourg, France.



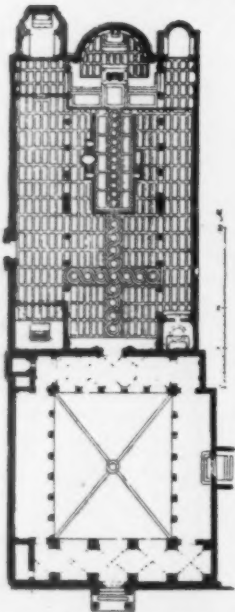
Abbey Church, Mont St. Michele, France.
[12th Century.]



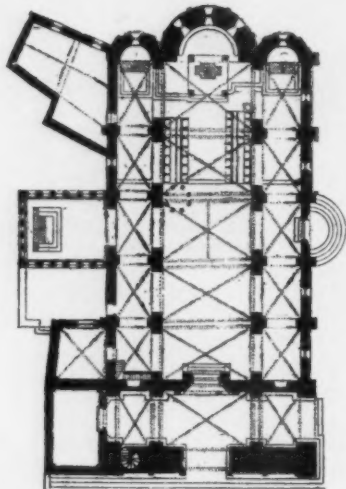
La Trinité, Paris, France. [1861-67.]



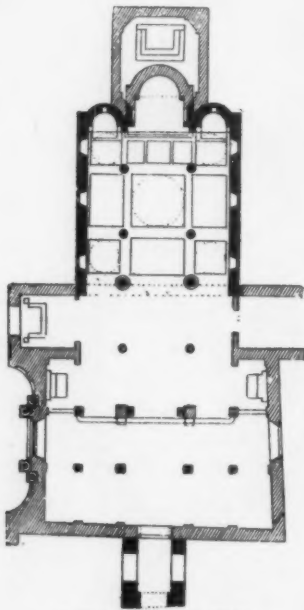
St. Nicodemus, Athens, Greece. [9th Century.]



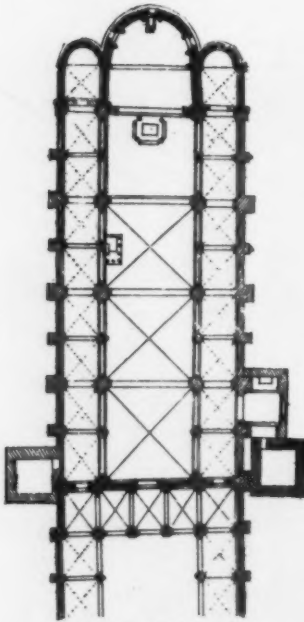
Basilica of S. Clemente, Rome, Italy. [9th Century.]



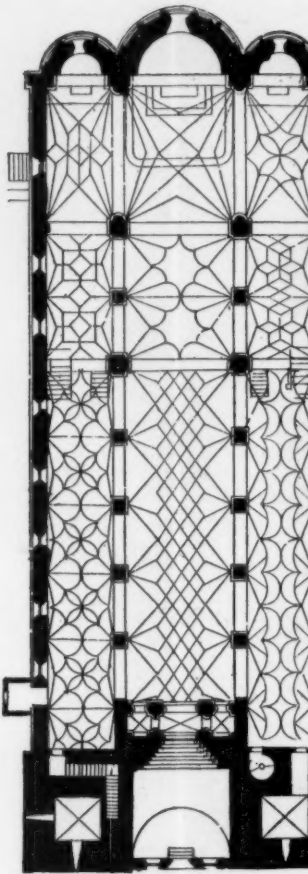
Cathedral, Trau, Dalmatia. [13th Century.]



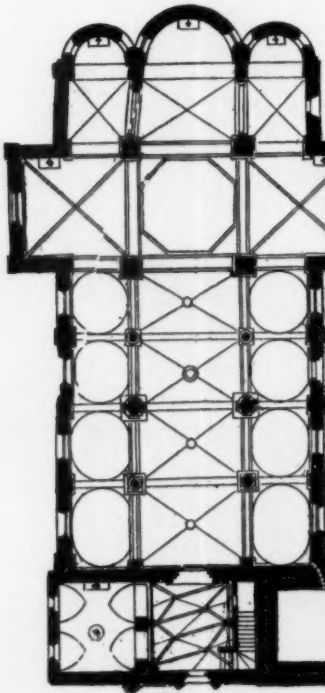
S. Fosca, Torcello, Italy. [9th and 10th Centuries.]



San Ambrogio, Milan, Italy. [9th, 10th, 11th Centuries.]



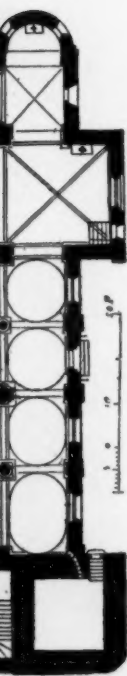
Cathedral, Gurk, Carinthia. [12th Century.]



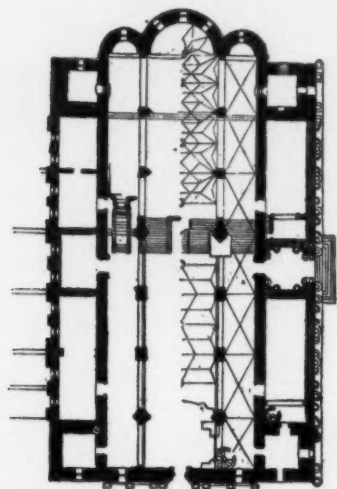
Church at Innichen, Austria. [13th Century.]



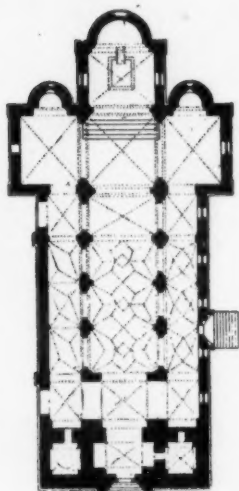
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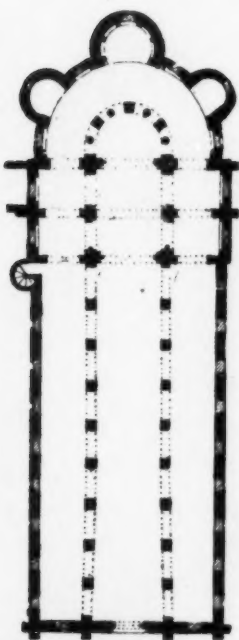
Austria.



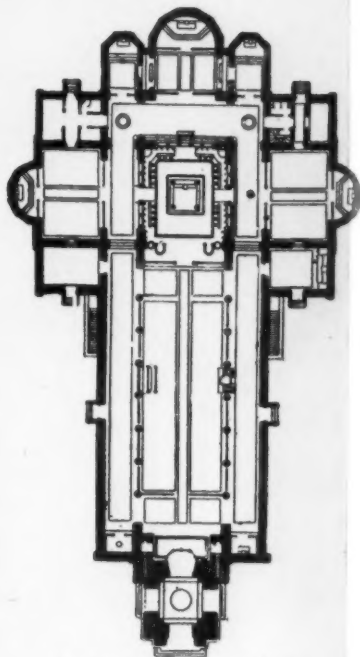
Cathedral, Fünfkirchen, Hungary.



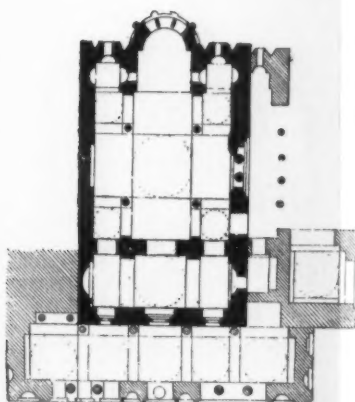
Abbey Church of St. Paul,
Lavant Thal, Carinthia.
[12th-13th Centuries.]



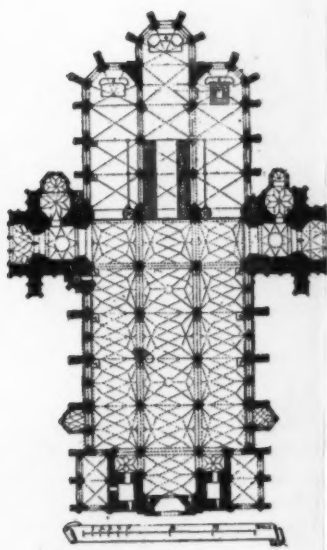
Church of Vignory, France.
[11th Century.]



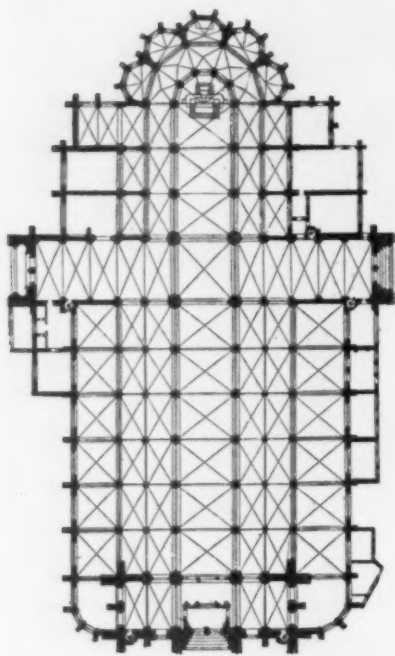
St. Pierre, Montrouge, France.
[1860-68.]



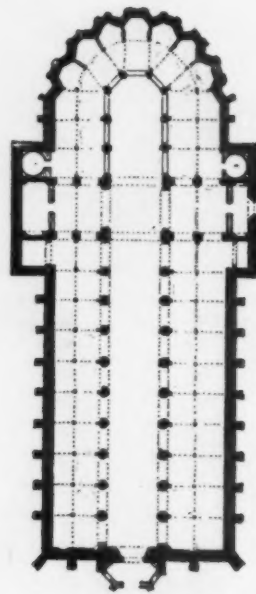
The Theotokos, Constantinople, Turkey.
[9th Century.]



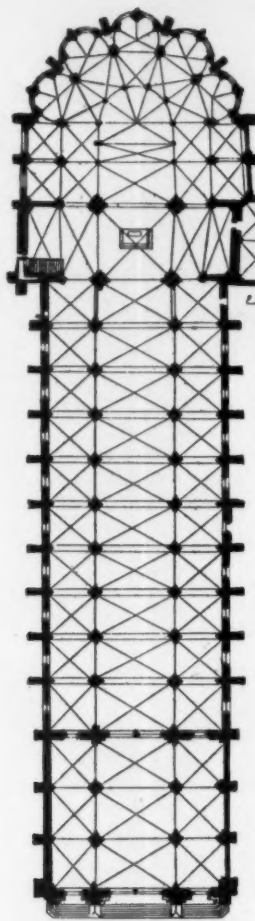
St. Stephen's, Vienna, Austria.
[14th Century.]



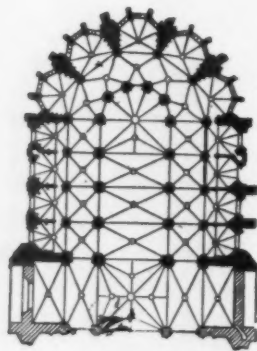
Antwerp Cathedral, Belgium. [14th Century.]



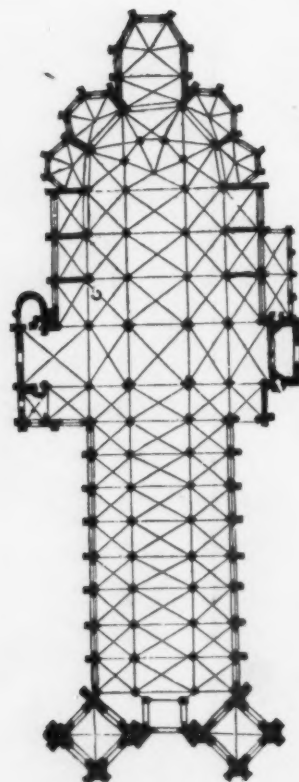
Seidlitz, Austria. [13th Century.]



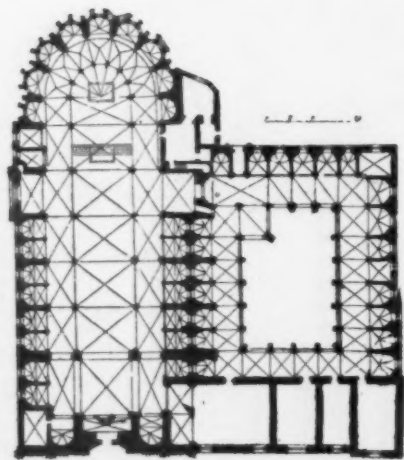
Church at Vezelay, France
[12th-13th Centuries.]



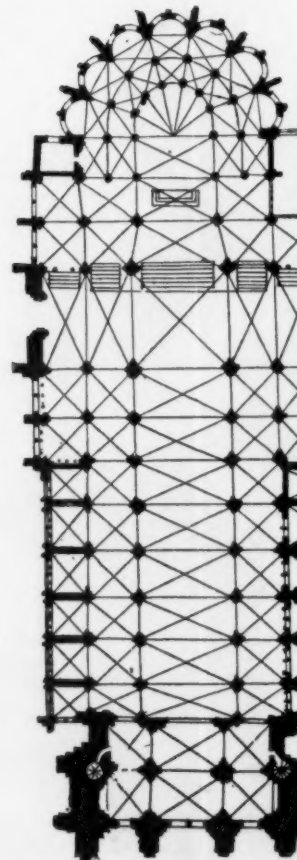
Narbonne Cathedral, France.
[13th Century.]



St. Ouen, Rouen, France.
[14th Century.]



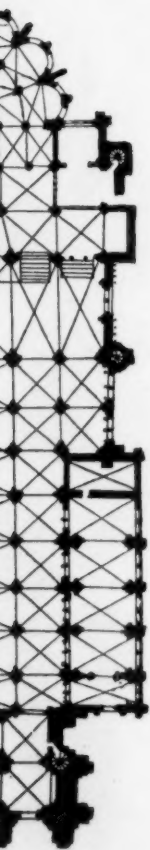
Barcelona Cathedral, Spain. [14th Century.]



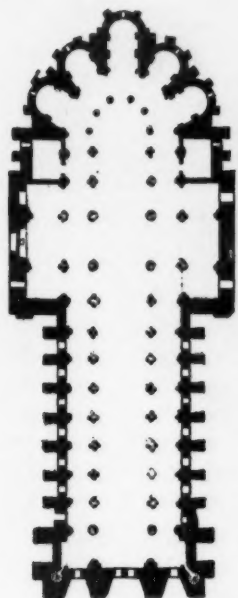
Abbey of St. Denis, France.
[12th-13th Centuries.]



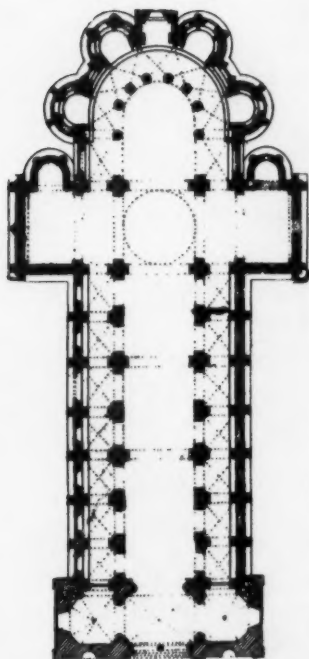
, France.
uries.]



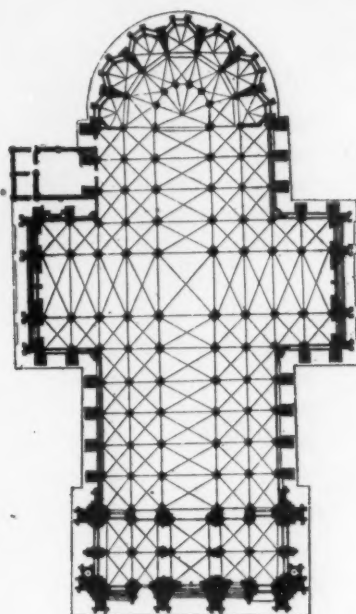
, France.
uries.]



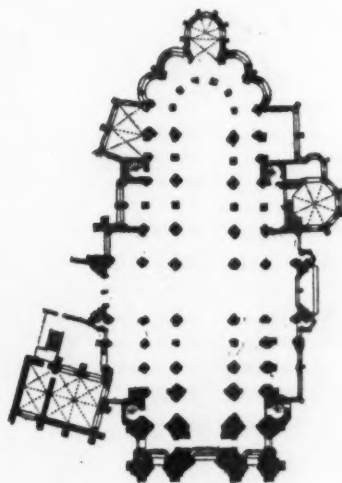
10 20 30 40 50 M.
Rheims Cathedral, France.
[13th Century.]



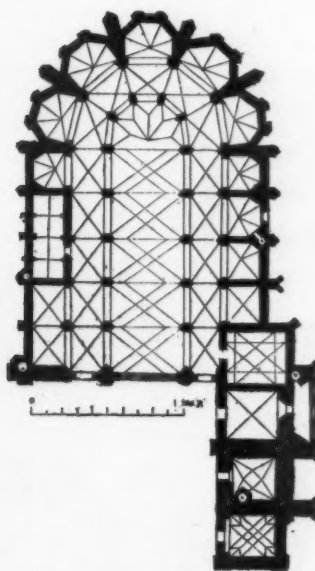
St. Paul, Issoire, France
[11th-12th Centuries.]



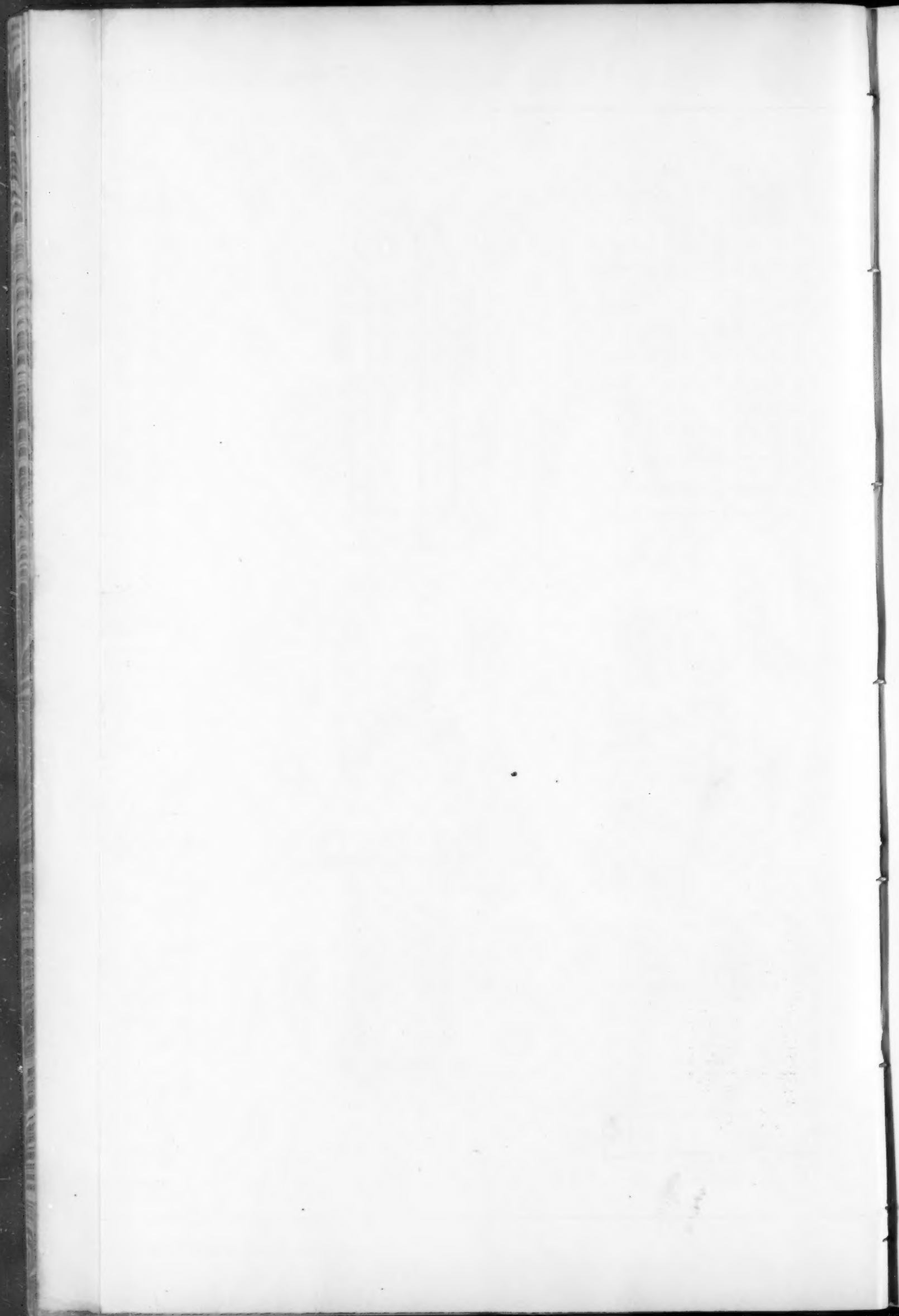
Cologne Cathedral, Germany. [13th Century.]



Senlis Cathedral, France.



Prague Cathedral, Bohemia.
[14th Century.]



other party may, of his own notion and for his own sole benefit, extend such wall upward still another story, irrespective of injury likely to result to the adjacent property, or that such use may ripen into an easement. The owner of the adjacent property, whose rights and estate are threatened by the proposed erection about to be made by the other, is entitled to the protection afforded by an injunction.

[Calmelet vs. Sichel (Supreme Ct. Neb.) 67 N. W. Rep. 467.]

Discretion of Inspectors as to Party-walls.—The discretion given by the Act of 1721 to the surveyors or regulators, whose duties are now performed by the building inspectors, to "regulate the walls to be built between party and party as to the breadth and thickness," has been modified by subsequent acts forbidding the erection of a wall of less than the prescribed minimum thickness, but has never been taken away or otherwise abridged. The Act of 1855 (Section 6) requires the person desiring to erect a building to make application to the inspectors, and to furnish "a written statement of the proposed location, the dimensions and manner of construction of the proposed edifice," and other particulars, and the granting of a permit to build in the manner described in the application is within the discretion of the inspectors. The thickness of a party-wall, and the extent to which it may encroach upon an adjoining lot, have never been left to the discretion of the builder. Under the Act of 1721, both were left to the discretion of the regulators, and under the later acts the discretion of the inspectors has been limited, so that a lot sixteen feet or less in width may not be encroached upon more than nine inches for a foundation and four and one-half inches for a brick wall, and so in no event shall the encroachment be more than ten inches for the stone and six and one-half for the brick wall. Within these limits the right of encroachment is to be fixed by the inspectors, not by the builder. This right is statutory.

It is not a right at any time and for any purpose to use the land of another, but only for the purpose and in the manner provided.

The extent of the use, subject to the limitations imposed, is to be determined by the character and size of the building to be erected, and is within the discretion of the inspectors. The builder should not be permitted to take more of his neighbor's land than he needs for the purpose of his building. The whole system of party-wall legislation rests upon the principle of mutuality of burdens and benefits. If, because of the height of the structure, a party-wall of greater thickness is required, the encroachment may extend to the full limit. If the structure requires the support of a party-wall of only minimum thickness, the right of encroachment is limited to eight inches in the foundation and four and one-half inches in the superstructure. The building inspectors may, in their discretion, because of the nature of the ground, or the intended use of the building, or for other reasons, require the erection of a thicker wall, without regard to the height of the building. If they do so, the right to use more of the adjoining lot up to the maximum limit follows; but the necessity, as far as it affects the right, is to be determined by the inspectors, not by the builder.

[Kirby vs. Fitzpatrick (Supreme Ct. Penn.) 32 Atlantic Rep. 53.]

Party-walls.—A property owner has a right to board up the windows in a party-wall to prevent persons on the adjoining premises from looking into his dwelling.

[Dawson vs. Kemper, (Ohio Cir. Ct.) 11 Rep. 180.]

Lateral Support.—Where the excavation by a party on land adjoining the land of another causes the soil of the latter to give way, due to its gravelly and sandy condition, and not because of a building upon the land, which was located four and one-half feet distant from the division line, the failure of the party making the excavation to protect such building, which could have been done at little expense, renders him liable for the damages to the land and building, and the failure of the owner of the building to take steps to protect his property does not prevent recovery on the ground of contributory negligence.

[Gildersleeve vs. Hammond (Supreme Ct. Mich.) 67 N. W. Rep. 519.]



[Contributors of drawings are requested to send also plans and a full and adequate description of the buildings, including a statement of cost.]

TOWER OF THE GARNISON-KIRCHE, POTSDAM, PRUSSIA. PHILIP GERLACH, ARCHITECT.

[Gelatin Print, issued with the International and Imperial Editions only.]

THE Towers of the Heiligen Geist-Kirche and the Garrison-Kirche, at Potsdam, Prussia, which, together with the dome of the St. Nikolaikirche, built by Schinkel, dominate the picturesque and peculiar silhouette of the city, prove that King Frederick William I, for whom they were built, was possessed of a deep-seated appreciation of the importance of architecture as a fine-art. The tower of the Garrison-Kirche, rising to a height of 289 feet, was erected in 1735, after the plans of Philip Gerlach. It is

the finer of the two, although the original plan had to be simplified to hasten its execution. The lower portion of the tower, being built of brick, plastered over, and having suffered considerably in the course of time from the weather, was subjected to extensive repairs some years ago. The upper portion is built of wood, covered with copper-plate. The church is, by the way, memorable for being the burial-place of two kings, viz.: Frederick William I, and Frederick the Great, both of whom are entombed in the crypt below.

APSIDAL TREATMENT, NO. 17: ST. MARIA DELLA PIEVE, AREZZO, ITALY.

THE Pieve, or parish church, of Arezzo, is said to date from the eighth century, but the greater part of the structure was rebuilt about 1216, by Marchionne, a local architect. Its unique west front is of four stories with a horizontal cornice, and at its angle rises a high square campanile, erected in 1330. The first story of the front is an arcade, the other three consist of open galleries with columns, the latter being a curious mixture of sizes, shapes and styles, some Classical, some Byzantine, some Gothic, their capitals and bases evidently collected from the ruins of older buildings. The apse is supposed to have undergone little alteration since the end of the tenth century. A view of the west front was published in the *American Architect* for September 12, 1885.

APSIDAL TREATMENT, NO. 18: CHURCH OF S. STEFANO, FLORENCE, ITALY.

SAN STEFANO was a church of some importance as early as 1116, and is one of the most ancient in Florence. It was modernized in 1656. In 1373 Boccaccio lectured here on the "Divina Commedia," of Dante. The bronze bas-relief on the altar represents the martyrdom of St. Stephen and is by Tacca.

APSIDAL TREATMENT, NOS. 19, 20 AND 21: PLANS OF UNIAPSIDAL, TRIAPSIDAL AND POLYAPSIDAL CHURCHES.

[The following named illustrations may be found by reference to our advertising pages.]

PUEBLO ARCHITECTURE I: A ZUNI FARM-HOUSE.

SEE article elsewhere in this issue.

PUEBLO ARCHITECTURE I: AN INTERIOR COURT IN ZUNI.

[Additional Illustrations in the International Edition.]

TOWER OF THE HEILIGEN GEIST-KIRCHE, POTSDAM, PRUSSIA. JOHANN FRIEDRICH GRAEL, ARCHITECT.

[Gelatin Print.]

THE Heiligen Geist-Kirche, begun 1726, after a plan by Johann Friedrich Grael, received its well-proportioned tower in 1734. Here, too, the two upper stories are constructed of wood, covered with copper-plating.

DETAIL OF THE ROTUNDA: LIBRARY OF CONGRESS, WASHINGTON, D. C. ARCHITECTS, MESSRS. SMITHMEYER & PELZ; P. J. PELZ; E. P. CASEY.

[Gelatin Print.]

NEW TOWER FOR THE CHURCH OF ST. MARTIN LISKEARD, CORNWALL, ENG. MR. H. P. BURKE-DOWNING, ARCHITECT.

THE GREAT SCREEN: WINCHESTER CATHEDRAL, ENG.



[The editors cannot pay attention to demands of correspondents who forget to give their names and addresses as guaranty of good faith; nor do they hold themselves responsible for opinions expressed by their correspondents.]

IRON USED BY THE BUILDERS OF THE PARTHENON.

BOSTON, MASS., April 12, 1897.

TO THE EDITORS OF THE AMERICAN ARCHITECT:—

Dear Sirs,—In reply to your inquiry as to when iron was used for the clamps by which the blocks of the walls of the Parthenon are held together, I beg to say that an examination of the walls themselves leaves no possibility of doubt that the iron clamps are part of

the original construction of the building. Their position in the interior of the walls makes it impossible that they should have been inserted at a later date, unless the entire building was taken to pieces for the purpose, and this conjecture is, of course, not worth considering.

With regard to the common use of bronze in clamps, I think you will find that this is a tradition which is not supported by evidence. Bronze clamps are very rarely found in Greek building,—so rarely, indeed, that Durm, in his "*Baukunst der Griechen*" (pp. 56, 57), asserts that they were never used. As a matter of fact, I believe that some have been found at Olympia; but in any case the use of iron for this purpose was practically universal among the Greeks, and doubtless their builders felt perfectly safe in adopting it because they knew that, so long as the walls and the roof remained intact, the clamps were absolutely protected from moisture, and there was, therefore, no danger of their rusting.

Very respectfully yours,

EDWARD ROBINSON.

NOTES AND CLIPPINGS

NERO AS A BUILDER.—The architects employed by Nero after the great conflagration of Rome in the construction of his Golden House, which surpassed all that was stupendous and beautiful in Italy, and proclaims the extravagance of the emperor as much as anything else he undertook, were Celer and Severus. Nero's statue, 120 feet high, stood in a court ornamented with porticos of three files of lofty columns, each file a mile long; the gardens were of vast extent, with vineyards, meadows and woods, filled with every sort of domestic and wild animals; a pond was converted into a sea surrounded by a sufficient number of edifices to form a city; pearls, gems and the most precious materials were used everywhere, and especially gold, the great profusion of which within and without, and even on the roofs, caused it to be called the Golden House; the essences and perfumes continually shed around showed the extreme extravagance of this inhuman monster, who for the purpose of gratifying his pleasures seized on the wealth of others. Among other curiosities was an eating-room, in which was represented the firmament constantly revolving, imitative of the motion of the heavenly bodies; from it was showered down every sort of odoriferous water. Nero did not complete this palace, as the first order of Otho was the sum of ninety millions of sesterces for the finishing it. The ground not occupied by it was left to the inhabitants of Rome to build their houses on, which were not rebuilt in the same manner as after the conflagration by the Gauls; the streets were made more spacious, the squares widened and surrounded by porticos. The emperor published many wise regulations to prevent the repetition of a misfortune which some imputed to him. At a certain height wood was not permitted to be used, but stone from Alba or Galba, as the most likely to resist fire; reservoirs were provided, and persons constantly ready to render the most prompt assistance in case of accident; the houses were to be a certain distance from each other, and they were to have no wall in common. These regulations rendered the city more beautiful, more commodious and more secure; nevertheless, the wide streets were objected to as not affording sufficient shelter from the sun. But it is usual to condemn all that is new, particularly if the projector is disliked, as if the vicious could not do anything that was good. Suetonius assures us that Nero intended to extend the walls of Rome to Ostia, and afterwards by means of a canal, conduct the sea to the Seven Hills, an idea very likely suggested by these two architects, who were great projectors, and who undertook to make a canal from Lake Avernus to the Tiber. This canal was to be 160 miles long and sufficiently wide to admit of two vessels abreast; all the prisoners were collected, immense treasures were exhausted in cutting through mountains, but the obstacles they met with dispirited them, and the work was relinquished; the motive was ridiculous, being only to prevent vessels from doubling Cape Misenum. His great palace was but of short duration. The Emperor Vespasian restored to the people the lands which Nero had taken from them, and thus the Golden House disappeared like one of the enchanted palaces of Tasso and Ariosto, and in its place arose the mighty Colosseum and the magnificent Temple of Peace. — *The Architect*.

DESERTED CITY OF AMBIR.—Imagine a valley in the form of a huge crater, the sides of which are covered with thick jungle, in the centre of which rises a green mound, forming a pedestal for a fairylike and dazzling marble palace, beside which the wonders of Seville and of Granada in Spain pale into insignificance, and around this palace, which looks upon a great, gloomy lake, a large town, a great metropolis, the smallest houses of which are stately palaces. Not a soul is to be seen in the broad streets, not a trace of smoke rising into the air, not a sound is to be heard. Such is Ambir, which, in architectural beauty, in stateliness and in the loveliness with which nature has supplemented art, and art nature, surpasses every other city in the old world. A mixture of the romantic and the mysterious takes possession of the tourist who gazes for the first time upon this deserted city. He feels tempted to ask himself whether, after all, it is not a mere phantom of the Arabian Nights, and whether, like a second Calender, he has come to disturb the silence of this sleeping metropolis and to bring to light some frightful mystery. The palace in particular has a supernatural appearance, with its marble turrets that have the yellowish tint of ivory, and its lofty walls that are ornamented with gilded balconies. In spite of the impression which prevails widely, that there is some mystery connected with the desertion of Ambir, once the capital of Rajpoutana, yet its abandonment was solely and entirely due to a piece of capricious despotism on the part of King Jey Sing II, who reigned at Ambir some two hundred years ago, and who is famous in

Oriental history as the greatest astronomer that India has ever known. He took it into his head that Ambir, inclosed in the valley of the Kalikho mountains, was incapable of development or extension, that it was too inaccessible, and that it was unworthy of the grandeur of his kingdom. Accordingly he planned and built a new capital some eight or ten miles lower down, and gave it the name of Jeypore. As soon as he had completed his task he commanded the entire population of Ambir to abandon their homes, and to take up their residence in Jeypore. No one was permitted to remain behind, and thus it happens that to-day the great city of Ambir, which, founded in the first century of the Christian era, was so magnificently built that none of its palaces or public buildings have yet fallen into ruin or decay, is to-day tenanted only by myriads of monkeys, while here or there a naked fakir, who has come to pray at one of the shrines which abound on the shores of the lake, may be seen bathing in its somber waters. — *N. Y. Tribune*.

A MADMAN'S COLLECTION.—The Sicilian Prince of Valguanera at the beginning of this century was a monomaniac of a rare description. He succeeded to one of the largest fortunes in Europe; his habits were studious and economical; he had no children; but in spite of these advantages for saving money he contrived to ruin himself. The Prince had a fancy for grotesque statues, with which he adorned the stately mansion of his forefathers. Many descriptions of the place are extant, for it was renowned through Europe in its day. Brydone visited it and he has left us a pleasant picture. Approaching by a noble avenue one found the palace encircled by an "army" of monsters. "The absurdity of the wretched imagination which created them is not less astonishing than its wonderful fertility," says Brydone. "Some were a compound of five or six animals which have no resemblance in nature. In one instance the head of a lion was set upon the neck of a goose, with the body of a lizard, the eye of a goat and the tail of a fox. Upon the back of this object stood another with five or six heads and a grove of horns. There is no kind of horn in the world that he [the Prince] has not collected, and his pleasure is to see them all flourishing on the same skull." Of such horrors there were 600 in the avenue and the courtyard alone when Brydone saw the collection. The Prince maintained a regiment of sculptors, who were rewarded proportionately to their success in designing new and unparalleled combinations. . . . The inside of the house was eccentric in another fashion. Here the madman diverted himself with columns and arches and pyramids of cups and saucers, teapots and the like, cemented together. One column, for instance, started from a great porcelain vase of shape familiar in bedrooms, but not elsewhere; the shaft was teapots, the spouts protruding, graduated in size up to a capital of flowerpots. . . . The Prince's bedroom was a chamber of supreme horror. Reptiles, awful beyond conception, had their home there, intermixed with pleasing busts and statues which, if turned, showed a skeleton or a hideous representation of decrepitude. We have never observed an allusion to these things in a modern work of travel. Perhaps the Government destroyed them at the Prince's death, beggared by his mania. — *The Collector*.

THE SITE OF THE HOUSE OF BURGESSES.—The Association for the Preservation of Virginia Antiquities has long desired to possess the plot of ground on which stood the first capitol of the State, known as the House of Burgesses, and branches of the Association have been collecting money for its purchase. It has recently come into the possession of the Association, on a deed of gift from the owners, the Old Dominion Land Company, through Mr. C. B. Orcutt, of New York, the President of the company. There are few, if any, spots in the South around which cluster so many historical memories. It is to the South as much the "cradle of liberty" as Faneuil Hall is to Massachusetts. It was there that Patrick Henry presented his five famous resolutions against the Stamp Act, and defended them in a speech which has been declaimed from every school platform in the land; it was there also that in May, 1776, the Virginia convention adopted resolutions instructing the Virginia delegates to the General Congress to propose to that body to "deliver these united colonies free and independent States," and in the following June adopted a constitution by which Virginia declared herself an independent State, and prepared to defend the claim. The erection of the building, since destroyed, was provided for by the Assembly in 1699. It is the hope of the Virginia Association to restore it, and devote it to use as a public library. — *N. Y. Evening Post*.

A WREN ANECDOTE.—When Sir Christopher Wren was building the town-hall of Windsor, a fidgety member of the corporation—so the story goes—insisted that the roof required further support, and desired the architect to add more pillars. In vain did Sir Christopher assure him that the danger was imaginary; he knew better, says the *Youth's Companion*. The alarm spread, and the great architect was worried into adding the desired columns. Years passed, and in later times, when architect and patrons were dead, cleaning operations in the roof revealed the fact that the supposed additional support did not touch the roof by two inches, though this was not perceptible to the gazers below. By this ingenious expedient did Wren pacify his critics, while vindicating his own architectural skill to future generations.

STRIKING A BALANCE.—The late Duke of Wellington—second duke—was possessed of a neat wit which, upon one occasion, was exercised in a reply to a distinguished lady who belonged to the Roman Catholic persuasion, and had written asking him for £100 towards the expense of restoring her church. The duke replied as follows: "Dear Lady: . . . I shall be most happy to subscribe the sum you ask for to the admirable work in question. At the same time, I may mention that I myself am about to undertake the restoration of the Protestant Church at Strathfield-saye; and I have not the least doubt that you will assist me with a like sum. Only I think in that case no money need pass between us." — *The Churchman*.